

## **Chapter 18. DEVELOPMENT PLAN REQUIREMENTS**

### **18.1 Purpose and Intent**

This Chapter describes the information required for all development activity to ensure compliance with the standards found in this Code. The submission of a complete application in accordance with this Chapter is necessary prior to the scheduling of any review by the Administrator, Technical Review Committee, Planning Board, and/ or City Council.

### **18.2 ENVIRONMENTAL SURVEY**

Identification of existing trees, understory vegetation, known endangered species, habitats, wetlands, perennial streams, floodplains, and topographical features on a site prior to the advanced preparation of development plans enables the reasonable and practical planned preservation of existing and environmentally sensitive areas.

This requirement provides the City and the applicant the ability to evaluate the proposed development in order to preserve vegetation, to improve the appearance of the development proposed and to encourage the use of the existing forest and tree canopy, specimen trees, and significant vegetation to satisfy the requirements of this Chapter. An environmental survey is intended to identify forest stands or trees of a uniform size and species; specimen trees of varying sizes and species, particularly free standing or open-grown or field grown trees; a distinctive tree line or forest edge; existing watercourses; and previously documented endangered species habitats.

- A.** The use of digital geographic data obtained from the City of Salisbury or Rowan County is deemed to be sufficient for the Sketch and Master Plan phases of submittal requirements.
- B.** For Construction Documents, the Environmental Survey requirements are as follows: (Note: This requirement can be waived by the Administrator if the site lacks qualifying natural features.):
  - 1.** Provide a general written description of the significant vegetation. Significant vegetation is defined as being 12 inches in diameter at breast height (DBH) or greater and native understory species 2 inches or greater (e.g. dogwood, holly, redbud, etc.), including tree species and uniform the size and height of stands of homogeneous trees including the typical tree species composition of the forest stand, typical tree size, and general health and vigor of the stand and specimen trees.
  - 2.** Denote the dripline of any existing forest stand, as measured between existing tree trunks 6 inches or greater at the edge of the stand.
  - 3.** Identify all open grown or field-grown specimen trees located on the site 12 inches or greater DBH and any tree 24 inches or greater DBH.
  - 4.** Denote site conditions as “prime buildable”, “secondary buildable”, “conserved”, or “preserved” as defined in Section 6.3.B (1A).

5. Show all other important natural features influencing site design such as the location of wetlands, rock outcroppings, site topography at two foot contour intervals, slopes steeper than 15%, and perennial streams, natural drainage ways, lakes, and other water bodies, and floodplains indicating both the flood fringe and the flood way. USGS and FEMA data shall be used to determine the location of perennial streams.
6. Denote the presence of any known endangered species' habitats indicated in any surveys completed by Rowan County, the State of North Carolina, or other governmental agency.
7. Show all buffer delineations as follows:
  - a. Buffer boundaries including all undisturbed buffer zones must be clearly delineated on all Development Plans for approval by the City, on all Construction Documents, including grading and clearing plans, erosion and sediment control plans, and site plans.
  - b. Buffer boundaries for all required undisturbed buffer zones must be clearly delineated on-site prior to any land disturbing activities. Where existing trees are to be preserved in a buffer zone, limits of grading shall maintain a minimum 20-foot separation from the base of each tree on the upland side of the buffer or to the dripline.
  - c. Buffer boundaries including all buffer zones as well as all buffer requirements must be specified on the record plat, on individual deeds, and in property association documents for lands held in common.

**18.3 SCHEMATIC PLAN REQUIREMENTS**

In addition to information on the Environmental Survey, the Schematic Plan shall show in simple sketch form the proposed layout of streets, lots, buildings, public open spaces and other features in relation to existing conditions based upon the size of the tract proposed for development. All plans shall be submitted at a scale not less than 1 inch = 50 feet unless otherwise authorized by the Administrator. It shall also include the following information:

- A.** A sketch vicinity map, including north arrow, showing the location of the subdivision in relation to neighboring tracts, subdivisions, roads, and waterways.
- B.** The name, address, and telephone number of the property owner.
- C.** The name of the proposed development.
- D.** The boundary lines of the property and minimum lot size.
- E.** The total acreage.
- F.** The existing and proposed land uses and the existing land uses of adjacent properties.
- G.** If deemed necessary by the Administrator, existing topographic conditions shall be provided. Contours should not exceed 5 foot intervals. Rowan County or City of Salisbury topographic information may be used to fulfill this requirement.
- H.** The location, names, and right-of-way width of any existing streets on or within 300 feet of the land to be subdivided.
- I.** Lots of adjacent developed or platted properties.
- J.** Zoning classification of the land and adjacent properties.
- K.** Illustrative building elevations denoting general design elements and materials.
- L.** Watershed classification, if any.
- M.** Floodplain and floodway delineation.
- N.** Location of existing public water and/ or sewer lines within 300 feet of the property.
- O.** Location of existing or proposed thoroughfares within 300 feet of the property as shown on the City's currently adopted thoroughfare plan.

The size and number of completed applications shall be set by the Technical Review Committee.

**18.4 MASTER PLAN/ PRELIMINARY PLAT REQUIREMENTS**

The Master Plan shall be drawn to the following specifications and must contain or be accompanied by the information listed below. All plans shall be submitted at a scale not less than 1 inch = 50 feet unless otherwise authorized by the Administrator. No processing or review of a Master Plan will proceed without all of the following information:

- A.** The boundary, as determined by survey, of the area to be developed with all bearings and distances shown and the location within the area, or contiguous to it, of any existing streets, railroad lines, perennial streams, wetlands, easements or other significant features of the tract.
- B.** Scale denoted both graphically and numerically with north arrow.
- C.** A vicinity map showing the location of the subdivision with respect to adjacent streets and properties.
- D.** The location of proposed buildings, parking and loading areas, streets, alleys, easements, lots, parks or other open spaces, site reservations (i.e. school sites), property lines and building setback lines with street dimensions, tentative lot dimensions, and the location of any building restriction areas (i.e. flood hazard areas, buffer locations, watershed protection districts, and/ or jurisdictional wetlands). Site calculations shall include total acreage of tract, acreage in parks and other non-residential uses, total number and acreage of parcels, and the total number of housing units.
- E.** Environmental Survey in accordance with 18.2.
- F.** Calculations of proposed impervious cover.
- G.** The proposed name of the development, street names, the owner's name and address, the names of adjoining subdivisions or property owners, the date of plan preparation, and the zoning classification of the tract to be developed, and of adjoining properties.
- H.** Corporate limits and extra-territorial jurisdiction boundaries (where applicable).
- I.** Typical cross-sections of proposed streets and alleys. Cross-sections shall include the following criteria: right-of-way widths, pavement widths, curb and gutter profile, grass strip widths and locations, sidewalk widths and locations, underground utilities' widths and locations, and building setbacks.
- J.** The proposed limits of construction for all proposed development activity.
- K.** Phase lines (if applicable).
- L.** Original contours at intervals of not greater than 2 feet for the entire area to be subdivided/ developed and extending into adjoining property for a distance of 300 feet at all points where street rights-of-way connect to the adjoining property and 10 feet at all other points of common project boundaries. Rowan County or City of Salisbury digital topography may be used to satisfy this requirement but should be field-verified to ensure accuracy. This requirement may be waived for developments smaller than one (1) acre or where insufficient topographic changes warrant such information.
- M.** Illustrative Landscape/ Tree Plan

In addition to the above required information, the following additional information may be required by the Administrator, the Planning Board, or the City Council on a discretionary site-specific basis:

- N.** Environmental Impact Statement, pursuant to Article 113A of the North Carolina General Statutes, if: the development exceeds 2 acres in area, and; if the Planning Board deems it necessary due to the nature of the land or peculiarities in the proposed design.
- O.** Development Permit and Certification application with supporting documentation as required by the Salisbury Flood Damage Prevention Ordinance.
- P.** Certificate of Appropriateness for historic properties.
- Q.** Traffic Impact Study (if applicable)

The size and number of completed applications shall be set by the Technical Review Committee.

## 18.5 CONSTRUCTION DOCUMENT REQUIREMENTS

The Construction Documents for Master Plans, Site Plans, and Preliminary Plats shall be submitted in accordance with the specifications of this Section except where specifically noted. Construction Documents shall constitute the complete submittal requirements for Site Plans and Preliminary Plats required prior to construction.

The size and number of completed application submittal copies required shall be set by the Technical Review Committee.

Construction Drawings must be drawn to the following specifications and must contain or be accompanied by the applicable information listed below. All plans shall be submitted at a scale not less than 1 inch = 50 feet unless otherwise authorized by the Administrator. No processing or review of Construction Documents will proceed without all of the following information:

- A. The boundary, as determined by survey, of the area to be subdivided with all bearings and distances shown and the location within the area, or contiguous to it, of any existing streets, railroad lines, water courses, easements, bridges, or other significant features of the tract.
- B. Scale in feet denoted both graphically and numerically with north arrow and declination.
- C. A sketch vicinity map at a scale no smaller than 1 inch equals 1,200 feet showing the relationship between the proposed subdivision and surrounding area.
- D. Existing topography and finish grading with contours drawn at two (2) foot intervals. This requirement may be waived for developments smaller than one (1) acre or where insufficient topographic changes warrant such information.
- E. Corporate limits and extra-territorial jurisdiction boundaries (where applicable).
- F. The proposed names of the development and streets, the owner's name and address, signature of the owner or owner's duly authorized agent, the surveyor's and/or engineer's name and seal, the names of existing and proposed adjoining subdivisions or property owners, the names of the township, county, and state in which the development is located, the date of preparation, and the zoning classification of the tract to be developed and of adjoining properties.
- G. Proposed lot lines, lot and block numbers, and exact dimensions.
- H. The future ownership (dedication or reservation for public use to a governmental body; for owners to duly constituted home owners' associated, for tenant's remaining in subdivider's ownership of recreation and open space lands).
- I. The plans for utility layouts, including sanitary sewers, storm drains, and water lines, illustrating connections to existing systems. All systems shall be designed and constructed in accordance with the adopted Uniform Construction Standards of the City of Salisbury.
- J. The location and size of all utility lines, easements, and rights-of-way. Easements shall be provided on all Construction Documents as follows:
  - 1. **Utility Easements:** Easements for underground or above ground utilities shall be provided for and centered along rear or side lot lines, and shall be a minimum of 10 feet in width. Easements for water and sanitary sewer lines, s, and sanitary

sewers shall be centered on the pipe and a minimum of 30 feet in width or as required by Design Manual.

2. **Drainage Easements:** Where a development is crossed by a stream or drainage way, an easement shall be provided conforming to the lines of such drainage way and in accordance with the adopted Uniform Construction Standards of the City of Salisbury.
  3. **Landscape Easements:** Landscape easements along streets should be designed in accordance with the provisions of Chapters 6.0 Environmental Protection and 8.0 Landscaping. The City may require landscape easements for developments where industrial or commercial uses abut residential uses.
  4. **Public Access Easements:** Public Access Easements shall be provided for sidewalks, trails, greenways, and other pedestrian and bicycle facilities that provide connections other than within public rights-of-way.
- K.** The location of proposed buildings, parking and loading areas, streets, alleys, lots, parks or other open spaces, reservations (i.e. school sites), property lines and building setback lines with street dimensions, tentative lot dimensions, and the location of any building restriction areas (i.e. flood hazard areas, watershed protection districts, and/or jurisdictional wetlands).
- L.** Site calculations shall include total acreage of tract, acreage in parks and other non-residential uses, total number and acreage of parcels, the total number of housing units, area of all mixed-use and non-residential buildings, gross project density per acre, linear feet of streets, and the accurate locations and descriptions of all monuments, markers, and control points. Watershed Protection Permit applications shall also contain supporting site calculations as per Chapter 6.
- M.** The location and dimensions of all off-street parking and loading spaces, and walkways indicating the type of surfacing, size, angle of stalls, and width of aisles.
- N.** The location and dimensions of proposed recreation areas, open space, and required amenities and improvements including the calculated area of all required open space dedications in accordance with Chapter 7.
- O.** The location and dimensions of any sidewalks, curb and gutters to be installed along public street frontages, and other required street improvements designated in Chapter 9 of this Code. Required right-of-way shall be drawn in the location shown on any official plan at the width specified in this Code.
- P.** Typical cross sections of proposed streets showing rights-of-way, pavement widths, grades, and design engineering data for all corners and curves. Where a proposed street is an extension of an existing street the profile of the street shall include 300 feet of the existing roadway, with a cross section of the existing street. Where a proposed street within the subdivision abuts a tract of land that adjoins the subdivision and where said street may be expected to extend into said adjoining tract of land, the profile shall be extended to include 300 feet of the said adjoining tract.
- Q.** The location of any existing or proposed demolition landfills in the site. Such sites shall not be used for building.
- R.** NPDES storm water permit (if applicable).
- S.** A copy of the soil erosion and sedimentation plans and approval letter.

- T.** Building elevations shall be required of all Major Site Plans, but not of subdivisions (commercial or residential).
- U.** Supplemental Plans as applicable:
  - 1.** **Landscape Plan** in accordance with Section 18.8.
  - 2.** **Tree Preservation Plan** in accordance with Section 18.9.
  - 3.** **Lighting Plan** in accordance with Section 18.10.
  - 4.** **Architectural Plans** in accordance with Section 18.11.
  - 5.** **Traffic Impact Analysis** (if required) in accordance with Section 18.12

In addition to the above required information, the following additional information may be necessary for specific sites as determined by the Administrator or the Technical Review Committee:

- V.** Where a proposed water and sewer system does not contemplate the use of facilities owned and operated by the City, the proposed facility plans as approved by the appropriate agency, shall be submitted with the Construction Documents.
- W.** Where public or community water supply and/ or sewerage systems are not available or to be provided, a written statement from the Rowan County Health Department shall be submitted with the Construction Documents indicating that each lot has adequate land area and soil conditions suitable to accommodate the proposed methods of water supply and sewage disposal.
- X.** Watershed Protection Permit application and supporting calculations and plans in accordance with Chapter 6.
- Y.** Development Permit and Certification application with supporting documentation as required by the Salisbury Flood Damage Prevention Ordinance

## **18.6 FINAL PLAT REQUIREMENTS**

The final plat shall be prepared by a registered land surveyor, licensed to practice in the State of North Carolina and must be drawn to a scale no less than 1 inch = 100 feet, and shall meet the requirements of the Rowan County Register of Deeds Office. The final plat shall constitute an entire phase as shown on the approved master plan. The size and number of completed applications shall be set by the Technical Review Committee.

No Final Plat shall be approved unless and until the subdivider has installed in the platted area all improvements required by this Code or has posted Improvement Guarantees in accordance with Chapter 13, Section 13.8 and Chapter 14, Section 14.7. The Final Plat shall contain the following:

- A.** The exact boundary of the tract of land being subdivided showing clearly the disposition of all portions of the tract.
- B.** Scale denoted both graphically and numerically with north arrow and declination. A vicinity map showing the location of the subdivision with respect to adjacent streets and properties.
- C.** As built drawings and plans of all water, sewer, and storm drainage system facilities, illustrating their layouts and connections to existing systems. Such plans shall show all



easements and rights-of-way, to demonstrate that the facilities are properly placed and the locations of all fire hydrants, blow-off valves, manholes, pumps, force mains, and gate valves are indicated. This information shall not be placed on the final plat but must be submitted at the time of request for final plat approval or release of any surety for required improvements, whichever comes later. In the case of projects where a guarantee is posted, the requirement shall be fulfilled prior to the release of the guarantee.

- D.** Sufficient data to determine readily and reproduce accurately on the ground the location, bearing, and length of every street, alley line, lot line, building line, easement line, and setback line. All dimensions, bearings, and angles shall be in accordance with the Standards of Practice for Surveying in the State of North Carolina.
- E.** The lines and names of all streets, alley lines, lot lines, lot and block numbers, lot addresses, building setback lines, easements, reservations, on-site demolition landfills and areas dedicated to public purpose with notes stating their purposes.
- F.** All lots in a regulated floodplain shall be noted with the following statement:

"Any construction or use within the Special Flood Hazard Area (SFHA) is subject to the restrictions imposed by the Salisbury Flood Damage Prevention Ordinance."

A minimum finished floor elevation shall be noted for all lots in the SFHA.
- G.** The accurate locations and descriptions of all monuments, markers, and control points.
- H.** Underground and aerial utility easements shall be shown.
- I.** The name of the subdivision, the name of the owner, the name, registration number, and seal of the registered surveyor under whose supervision the plat was prepared, and the date of the plat.
- J.** The exact location of stream corridor buffer boundaries including all buffer zones as well as all buffer requirements must be specified on the record plat, on individual deeds, and in property association documents for lands held in common.
- K.** Submittal of payment in lieu of dedicated open space (if applicable).
- L.** All the following certifications must appear on the Final Plat:

**1. Certificate of Survey and Accuracy.** I, \_\_\_\_\_, certify that this plat was drawn under my supervision from an actual survey made under my supervision (deed description recorded in Book \_\_\_\_\_, page \_\_\_\_\_, etc.) (other); that the boundaries not surveyed are clearly indicated as drawn from information found in Book \_\_\_\_\_, page \_\_\_\_\_; that the ratio of precision as calculated is 1: \_\_\_\_\_; that this plat was prepared in accordance with G.S. 47-30 as amended. Witness my original signature, registration number and seal this \_\_\_\_\_ day of \_\_\_\_\_, A.D., \_\_\_\_\_. Seal or Stamp

\_\_\_\_\_  
Signature and Surveyor Registration Number

**2. Certificate of Ownership and Dedication.** I hereby certify that I am the owner of the property shown and described, which is located in the subdivision jurisdiction of the City of Salisbury and that I hereby adopt this plan of subdivision with my free consent and in accordance with the standards set forth in the City of Salisbury Land Management and Development Code and Design Manual. Furthermore, I (We) hereby certify that I (we) will maintain the roads to the standards set forth by the City of Salisbury until the respective governmental agency takes over this responsibility. (This does not include the removal of snow/ ice).

\_\_\_\_\_  
Date

\_\_\_\_\_  
Owner(s)

**3. Certificate of Approval of the Design and Installation of Streets, Utilities, and Other Required Improvements.**

☐ I hereby certify that all streets, utilities, and other required improvements have been installed in an acceptable manner and according to City of Salisbury Specifications and Standards.

☐ I hereby certify that guarantees of the installation of the required improvements in an amount and manner satisfactory to the City of Salisbury has been received.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Subdivision Administrator, City of Salisbury

**4a. Certificate of Approval for Recording.** I do hereby certify that on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, the City of Salisbury approved this plat for recording and accepted the dedication of the streets, easements, rights-of-ways and public parks and other sites for public purposes as shown hereon, but assumes no responsibility to open or maintain the same until, in the opinion of the governing body of the City of Salisbury, it is in the public interest to do so.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Review Officer, City of Salisbury

**OR**

(The following certificate shall appear on all plats which do not meet the definition of subdivision as defined in this Code, but which need approval from the City for recording at the Rowan County Register of Deeds Office. This Certificate is to be used in lieu of 4a. above.)

**4b. Certificate of Approval for Recording.** I hereby certify that (the subdivision plat shown is exempt from the subdivision provisions of the Salisbury Land Management and Development Code) OR (this is a map for recordation and does not constitute a subdivision of land). The plat has been found to comply with the regulations of the Salisbury Land Management and Development Code, and has been approved by the City of Salisbury for recording in the Office of the Register of Deeds of Rowan County.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Review Officer, City of Salisbury

**5. Review Officer Certification.** State of North Carolina, County of Rowan  
I, \_\_\_\_\_, Review Officer of Rowan County, certify that the  
map or plat to which this certification is affixed meets all the statutory  
requirements for recording.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Review Officer

**6. North Carolina Department of Transportation Certification.**  
**Division of Highways**

Proposed Subdivision Road  
Construction Standards Certification

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
District Engineer

## 18.7 LANDSCAPE PLAN REQUIREMENTS

A landscaping plan shall be required on all non-residential and multi-family uses in a residential district prior to any site disturbance.

### A. Tree Preservation Plans

1. Existing trees shall be preserved whenever feasible. Credits for tree preservation are offered when a tree preservation plan is submitted prior to grading the site.
2. A tree preservation plan must show that there will be no disturbance in the Critical root zone (CRZ). A disturbance is considered trenching, placing backfill in the CRZ, driving or parking equipment in the CRZ, and dumping of trash, oil, paint or other materials detrimental to plant health in close proximity of the tree(s).
3. When selecting which trees to preserve, the following shall be considered: existing and proposed grading; age, condition, and type of tree; and location of site improvements and utility connections.
4. Credits for existing trees within parking lots, Planting Yards and Street Yards will be given at the rate of 12 points per 4 inches in diameter at breast height (DBH) of existing plant material preserved. Minimum size requirement to qualify for tree preservation is 4 inches (DBH).
5. Should any tree designated for preservation in the tree preservation plan die at anytime after approval of the plan or issuance of a Certificate of Occupancy, the owner shall replace sufficient landscaping equal to the tree preservation credit within 180 days. In the event of a restricted site, the owner may request review by the Technical Review Committee. The replacement tree shall be a minimum of 2" in Caliper for a Shade Tree and a minimum of 6' in height for an Ornamental Tree (six feet from the top of root ball to top of tree) at the time of planting.

### B. Landscape Plans

The plan shall contain the following information:

1. Name of the project, name and address of owner, name and address of designer, scale, date, legend, and north arrow.
2. An accurate, scaled drawing of property boundaries with zoning designations of proposed development and adjacent properties.
3. A development summary including the total development acreage, proposed use(s), required parking and provided parking spaces, and total building square footage.
4. The location of proposed buildings, signage, driveways, parking areas, required parking spaces, connections to existing streets, and traffic patterns.

5. The location of all overhead and underground utilities.
  6. General location, type and quantity of existing plant materials.
  7. Existing plan materials and areas to be left in natural state.
  8. Methods and details for protecting the critical root zone (CRZ) of existing plant materials during construction.
  9. Locations, size, and labels for all proposed plants.
  10. Plant lists with common name, botanical name, quantity, and spacing and size at time of planting of all proposed landscape material.
  11. Location and description of other landscape improvements, such as earth berms, walls, fences, screens, sculptures, fountains, lights, courtyards, walks or paved areas.
  12. Location and type of irrigation system, if applicable.
  13. Planting and installation details as necessary to ensure conformance with all required standards as referenced in Chapter 8.
- C. **Alternative Plans:** Alternate landscaping plans, plant materials, or planting methods may be used where unreasonable or impractical situations would result from application of landscaping requirements, or where necessary to protect existing vegetation. Such situations may result from streams, natural rock formations, topography, or other physical conditions; or from lot configuration, utility easements, unified development design, or unusual site conditions.

## **18.8 LIGHTING PLAN REQUIREMENTS**

An isolux lighting plan is required that indicates the foot-candles at grade by contour diagram or grid points that cover the site. For additional information regarding lighting, please refer to Chapter 11.

## **18.9 ARCHITECTURAL PLANS**

Architectural plans shall depict architectural details of the proposed development and shall consist of:

- A. Architectural façade details and treatments for all walls visible from a public right-of-way or public space (such as a park or plaza)
- B. Photos of existing conditions and surrounding structures and properties.
- C. Sections as required to full describe a building's massing
- D. Building Materials Schedule (a sample board may be requested)

### 18.10 TRAFFIC IMPACT STUDY (TIS)

- A. **Purpose:** Traffic impact studies shall be required for a rezoning, subdivision plan, site plan, conditional use permit, certificate of zoning compliance, or preliminary plat.
- B. **Rezoning Traffic Analysis:** Evaluates whether adequate transportation capacity exists or will be available within a reasonable time period to safely and conveniently accommodate proposed uses permitted under the requested land use or zoning classification.
- C. **Traffic Impact Report:** Required for certain permitted and conditional uses, land subdivisions, and preliminary plats exceeding specific trip generation threshold.
- D. **Preparation:** The applicant shall provide the full rationale, from a North Carolina licensed engineer, to perform such duties to support the recommendations of this analysis. The submission shall include all pertinent traffic data and computations affecting the design proposal.
- E. **Contents:** The Rezoning Traffic Analysis or the Traffic Impact Report shall contain the following:
  - 1. **Site Description:** A detailed report, containing illustrations and narrative, shall describe the site's characteristics, adjacent land uses, as well as any anticipated development within the site's vicinity influencing future traffic conditions.
    - a. A rezoning traffic analysis shall provide a description of the development's potential uses.
    - b. A traffic impact report shall include access plans, staging plans, and land use / intensity information.
  - 2. **Study Area:** The report shall indicate the geographic location of the study area, roadway segments, critical intersections, and access points to be analyzed. The study area shall extend not less than one-half (1/ 2) mile from the site.
  - 3. **Existing Traffic Conditions:** An analysis of the existing traffic conditions, including all data used for the analysis shall be provided in the report, including:
    - a. Traffic count and turning movement information, including the date and source from which this information was obtained;
    - b. Correction factors used to convert collected traffic data into representative average daily traffic volumes;
    - c. Roadway characteristics, including:
      - (1) Design configuration of existing or proposed roadways;
      - (2) Existing traffic control measures;

- (3) Existing driveways and turning movement conflicts in the vicinity of the site.
    - d. **Existing Level of Service (LOS)** for roadways and intersections without project development traffic. LOS shall be calculated for the weekday peak hour, and in the case of uses generating high levels of weekend traffic, the Saturday peak hour.
  - 4. **Horizon Year(s) and Background Traffic:** The report shall identify the horizon year(s) that were analyzed in the study, the background traffic growth factors for each horizon year, and the method and assumptions used to develop the background traffic growth. Unless otherwise approved, development impacts shall be examined for the first (1<sup>st</sup>) and tenth (10<sup>th</sup>) years after the development is completed.
  - 5. **Trip Generation, Trip Reduction, and Trip Distribution:** A summary of projected a.m. and p.m. peak hour and average daily trip generation for the proposed development shall be provided in addition to projected trip distribution to and from the site. The factors used to determine trip generation, reduction, and distribution are also to be included in the summary.
  - 6. **Traffic Assignment:** The report shall identify the projected roadway segment, intersection or driveway traffic volumes, with and without the proposed development, for the horizon year(s) of the study.
  - 7. **Impact Analysis:** The report shall address the impact of projected horizon year(s) traffic volumes. It shall identify the methodology used to evaluate the impact. The weekday peak hour impact shall be evaluated as well as the Saturday peak hour for those uses exhibiting high levels of weekend traffic generation.
  - 8. **Mitigation / Alternatives:** The report shall identify alternatives for achieving traffic service standards, including:
    - a. Additional rights-of-way necessary to implement mitigation strategies.
    - b. Suggested phasing improvements necessary to maintain compliance with traffic service standards.
    - c. Anticipated costs of recommended improvements.
- F. **Procedures:**
- 1. The applicant shall work with the City Engineer to determine if a traffic study is necessary and its associated parameters.
  - 2. The report shall be submitted to the City Engineer for distribution to staff and related roadway jurisdictions. The City Engineer shall notify the applicant if additional studies or analysis are necessary.



3. Once a report is determined to be complete, a finding shall be made by the Administrator on the traffic impact study. Proceedings on any application that were stayed pending completion of traffic analysis may resume.

**G. Report Findings:** If a proposed development does not meet the applicable service level standards, one or more of the following actions may be necessary.

1. Reduce the size, scale, scope, or density of the development to decrease traffic generation.
2. Divide the project into phases, and identify specific infrastructure that must be completed as a prerequisite to specific phases.
3. Dedicate right-of-way for street improvements;
4. Construct new streets;
5. Expand the capacity of existing streets;
6. Redesign ingress and egress to the project to reduce traffic conflicts;
7. Alter the use and type of development to reduce peak hour traffic;
8. Eliminate the potential for additional traffic generation from undeveloped properties in the vicinity of the proposed development;
9. Integrate non-vehicular design components (i.e. pedestrian and bicycle and transit improvements) to reduce trip generation;
10. Recommend denial of the application for which the TIS is submitted.